

## A new subspecies of *Agrias aedon* Hewitson (Lepidoptera, Nymphalidae) from Costa Rica

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**Abstract** A new subspecies of *Agrias aedon* Hewitson, 1848 is described from Costa Rica.

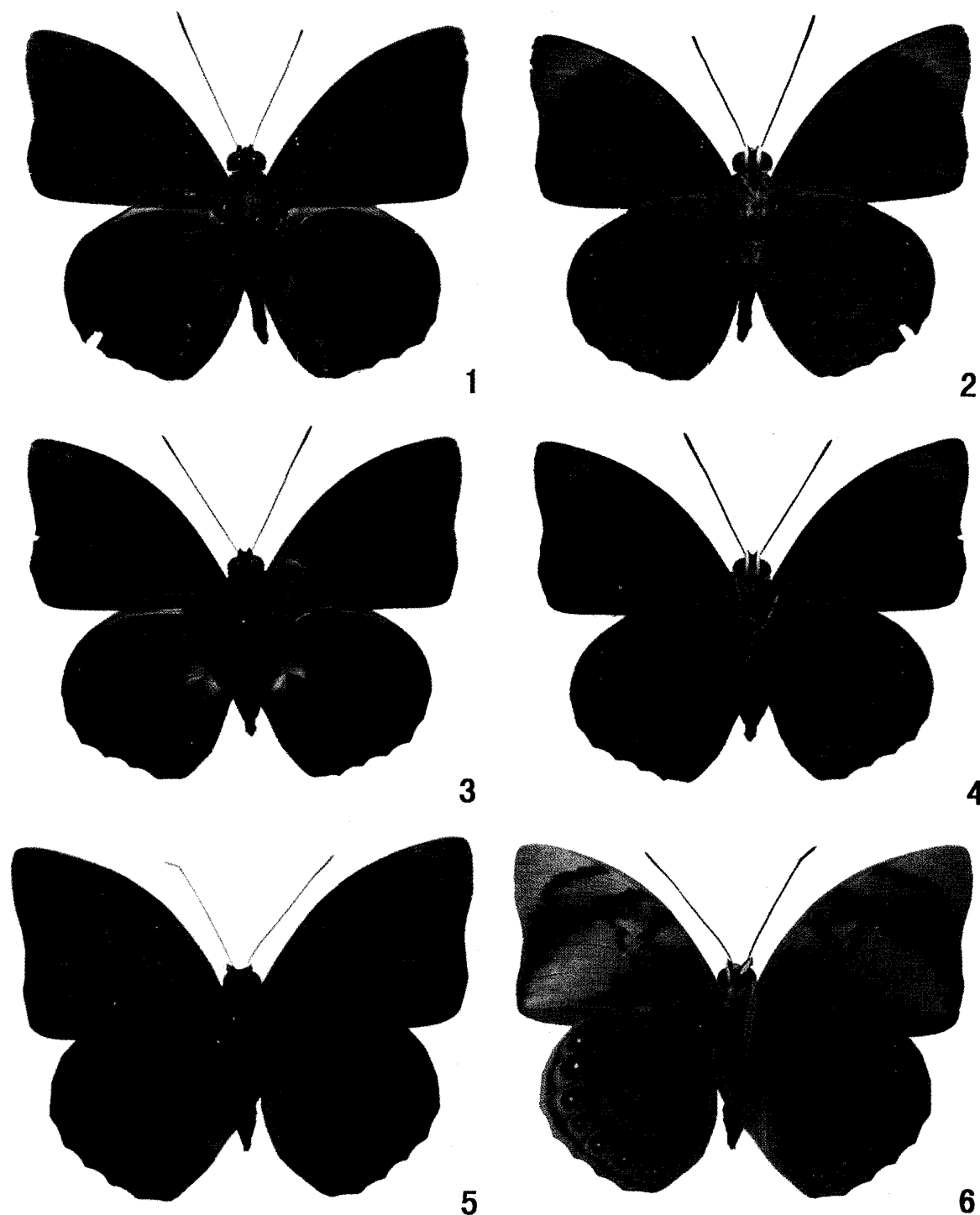
**Key words** *Agrias*, *Agrias aedon*, *Agrias aedon schultzei*, *Agrias aedon salvini*, *Agrias aedon petitoensis*, *Agrias aedon denhezi*, *Agrias aedon rodriguezi*, *Agrias aedon toyodai* ssp. nov., new locality.

*Agrias aedon* Hewitson, 1848 was described from eastern Colombia, Chiriqui, Muzo, rio Negro sup., and is known to be distributed from the northwestern part of Colombia and Venezuela to the southern part of Mexico. This species is very rare and is not widespread (Barselou, 1983; Sorimachi, 1998). According to Neild (1996) and Späth (1999), *A. aedon* is divided into 2 subspecies, ssp. *aedon* ranging in Colombia and Venezuela and ssp. *rodriguezi* Schaus, 1918, described from Guatemala, Vera Paz, ranging from Costa Rica to S. Mexico (Fig. 7). In ssp. *aedon* the forewing red patch is enlarged without a blue margin and the hindwing blue patch is reduced (Fig. 5), and in ssp. *rodriguezi* the forewing red patch is reduced and is widely surrounded by blue and the hindwing blue patch is well developed (Fig. 3). Several forms have been named and some were treated as subspecies by Rebillard (1961) and Salazar & Constantino (2001). These are *schultzei* Rebillard, 1961 (= *magdalenae* Schultze, 1928) from Colombia, *salvini* Fruhstorfer, 1895 from Colombia, Manauré, *petitoensis* Michael, 1930 from Cordill. occ. rio Pepito, *denhezi* Descimon & Mast, 1974 from Colombia, Cisneros. However, these four taxa are considered to constitute a nominotypical subspecies group, or even regarded as standing within the extent of variation of the nominotypical subspecies.

Recently, we have found a unique specimen of *A. aedon* from a new locality of Costa Rica, whose facies is somewhat intermediate between the two subspecies, and is different from the known nominal taxa mentioned above (Fig. 1). In Costa Rica, ssp. *rodriguezi* is distributed at a height of 600 to 1,200 meters on the Caribbean side (De Vries, 1987), while the new locality is located at a height of 300 meters on the Pacific side (Fig. 8). Although the material is only one specimen and we cannot decide whether this specimen represents a geographical population or it is merely an aberrant, we venture to describe it as a new subspecies. The reasons are that the new locality is very remote from the known Caribbean range of *rodriguezi*, and that the wing marking of *rodriguezi* is very stable and that no form similar to this specimen has been recorded (according to Späth (1999), only a yellow type was known).

### *Agrias aedon toyodai* ssp. nov. (Figs 1, 2)

♂. Length of forewing 40.3 mm, smaller than nominotypical subspecies *aedon*, almost the same size as subspecies *rodriguezi*. Forewing red patch enlarged, laterally expanded to just before tornus with its lower margin fully reaching vein 1 over its whole length and the



Figs 1-6. *Agrias aedon* spp. 1. *A. a. toyodai* ssp. nov., holotype ♂. 2. Ditto. Verso. 3. *A. a. rodriguezi* Schaus, ♂. 4. Ditto. Verso. 5. *A. a. aedon* Hewitson, ♂. 6. Ditto. Verso.

anterior margin showing a large arch; the red patch surrounded by blue as in *rodriguezi*, but the width of blue gradually narrowing towards the tornus by enlargement of the red patch both in the anterior part and above the hind margin. Hindwing with a large blue patch, which spreads from discal area to outer margin as in *rodriguezi*; its coloration is deep blue similar to *rodriguezi* from Costa Rica (Figs 3, 5). Verso surface basically dark brown as in *rodriguezi* from Costa Rica (Figs 4, 6).

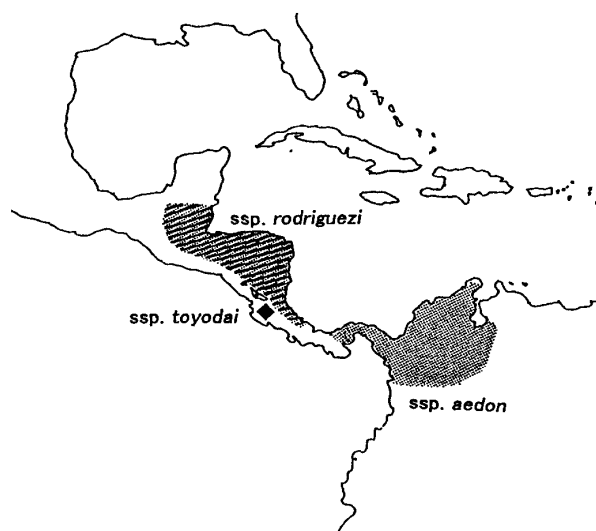


Fig. 7. Geographical distribution of *Agrias aedon* subspp.

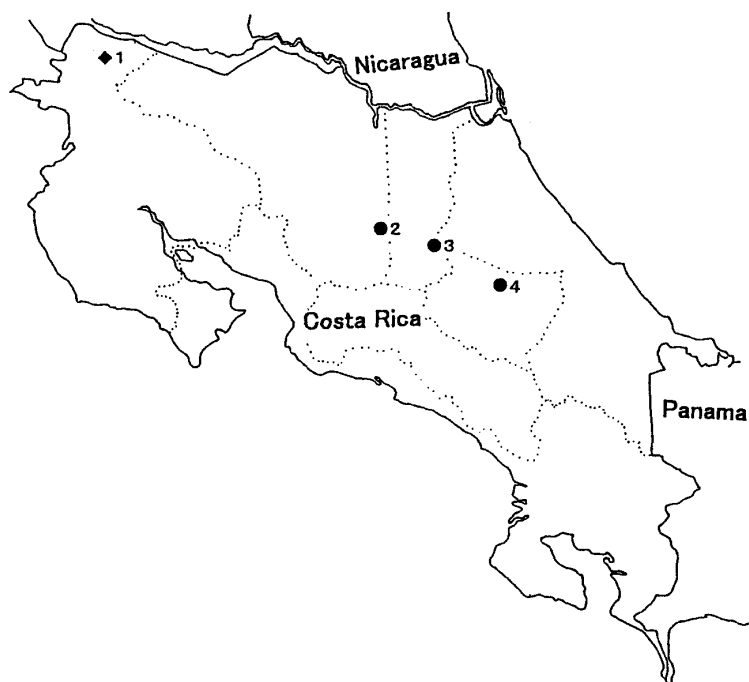


Fig. 8. A distribution map of *Agrias aedon toyodai* ssp. nov. (◆) and *A. a. rodriguezi* (●) in Costa Rica. 1. Santa Cecilia. 2. San Miguel. 3. Braulio Carrillo. 4. Turrialba.

Holotype. ♂, Santa Cecilia alt. 300 m, Guanacaste, Costa Rica, Mar. 2003, now in the collection of Masashi Hirata, will be deposited in Nawa Insect Museum, Gifu.

Distribution. NW. Costa Rica.

Remarks. The new subspecies *toyodai* has some unique characteristics and can readily be distinguished from the other subspecies. The shape of the red patch of the forewing is very similar to that of the nominotypical subspecies *aedon*, while the size of the specimen, the shape and coloration of the blue patch of the hindwing, and the dark brown coloration of

the verso surface are very similar to ssp. *rodriguezi* from Costa Rica. Judging from the locality and the similarity in wing marking, the new subspecies is apparently most closely related to ssp. *rodriguezi*.

Etymology. The subspecific name, *toyodai*, is dedicated to Dr Shoichiro Toyoda, who is the Honorary Consul General, Costa Rica, and who seeks to establish friendly relations between Costa Rica and Japan.

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## 摘 要

アエドンミイロタテハ *Agrias aedon* Hewitson, 1848 のコスタリカ産新亜種 (平田将士・宮川 崇)

*Agrias aedon* は南米北西部 (コロンビア・ベネズエラ) から中米メキシコ南部まで分布する。原名亜種を含め 2 亜種に分類され、南米北西部に原名亜種、コスタリカからメキシコ南部にかけて亜種 *rodriguezi* (模式産地は中米グアテマラ) が分布する。前者は大型 (♂前翅長 41.8 mm), 前翅赤紋はアーチ型に発達し、外縁に達する。前後翅ともに青紋の発達は良くない。後者はやや小型で (♂前翅長 40.1 mm), 前翅赤紋は縮小しアーチ型とならず、発達した青紋によってその周囲を囲まれる。後翅の青紋は外縁部まで大きく発達する。南米北西部からは、コロンビアを中心に *schultei*, *salvini*, *petitoensis*, *denhezi* といったいくつかの型が記載され、それらの中にはときに亜種として扱われるものもあるが、コスタリカ以北の個体群の斑紋は安定しているようで、*rodriguezi* の元に記載された型や *rodriguezi* に近縁として記載された亜種はなかった。筆者らは亜種 *rodriguezi* の分布圏に近接するコスタリカ北西部より本種を得たが、その斑紋は *rodriguezi* とともに原名亜種とも異なるので、新亜種 *Agrias aedon toyodai* として記載した。本新亜種は亜種 *rodriguezi* とほぼ同大。裏面も酷似しているが、前翅赤紋は原名亜種グループと同様にアーチ型に発達し、これに伴って *rodriguezi* に見られる青紋は後角部に向けて幅狭くなる。後翅は *rodriguezi* 同様に発達した青紋を有する。コスタリカにおいて本種は中央山脈のカリブ海側標高約 600-1,200 m に極めて局地的に亜種 *rodriguezi* が産することが知られている。本新亜種の産地はそれらの既知産地とは異なり、太平洋側標高約 300 m 地点である。

なお、亜種名 *toyodai* は日本におけるコスタリカ名誉領事を勤められ、日本とコスタリカの友好関係に大きな貢献をされた豊田章一郎氏に献名されたものである。

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